

Remarks/Arguments

Claims 1-14 are currently pending in the above-referenced patent application. **In the Office Action:** Claims 1, 4-7, 9, and 14 were rejected under 35 U.S.C. § 102(b) as being anticipated by Kim et al. (U.S. Patent No. 5,985,759). Claims 2 and 3 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kim et al. ('759) in view of Smith et al. (U.S. Patent No. 6,344,281). Claim 8 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Kim et al. ('759). Claims 10-13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kim et al. ('759) in view of Kim et al. (U.S. Application Publication No. 2002/0098682).

In reply to the rejection of claims 1, 4-7, 9, and 14 under 35 U.S.C. § 102(b) as being anticipated by Kim et al. ('759), the Applicants respectfully request reconsideration. These claims recite "...forming a wetting layer of an oxidation-resistive metal material on [a] barrier metal layer..."

Kim et al. ('759) relates to "oxygen enhancement of ion metal plasma (IMP) sputter deposited barrier layers", as specified in the title. On page 2 of the Office Action, it is implied that wetting layer 26 of Kim et al. ('759) discloses a wetting layer of an oxidation-resistive metal material. However, it is merely disclosed in column 8 of Kim et al. ('759) in lines 35-37, "...deposition of ...wetting layer 26 of titanium." The Applicants respectfully submit that titanium is not a oxidation-resistive metal material. Accordingly, unlike the recitations of claims 1, 4-7, 9, and 14, Kim et al. ('759) does not recite "...a wetting layer of an oxidation-resistive metal material on [a] barrier metal layer..." At least for this reason, a *prima facie* case of anticipation has not been established in the rejection of claim 1, 4-7, 9, and 14 under 35 U.S.C. § 102(b).

In reply to the rejections of claims 2 and 3 under 35 U.S.C. § 103(a) as being unpatentable over Kim et al. ('759) in view of Smith et al., the Applicants respectfully request reconsideration. These claims comprise the same recitations as discussed above for claims 1, 4-7, 9, and 14. For similar reasons as discussed above, Kim et al. ('759) does not teach or suggest "...forming a wetting layer of an oxidation-resistive metal material on [a] barrier metal layer...", as recited in claims 2 and 3.

Smith et al. relates to a “aluminum metallization method and product”, as specified in the title. In column 3, lines 33-38 of Smith et al., it is disclosed that a “...pre-cleaned substrate is subjected to the deposition of a wetting layer...” However, there is no disclosure in Smith et al. forming a wetting layer on a barrier metal layer. This is evident and apparent, as a pre-cleaned substrate is not a barrier metal layer. Accordingly, Smith et al. does not alleviate the deficiency of Kim et al. (‘759) of not teaching or suggesting “...forming a wetting layer of an oxidation-resistive metal material on [a] barrier metal layer...” At least for this reason, a *prima facie* case of obviousness has not been established.

In reply to rejection of claim 8 under 35 U.S.C. § 103(a) as being unpatentable over Kim et al. (‘759), the Applicants respectfully request reconsideration. Claim 8 comprises the same recitations as discussed above for claims 1, 4-7, 9, and 14. For similar reasons, as discussed above, Kim et al. (‘759) does not teach or suggest the recitation of claim 8 of “...forming a wetting layer of an oxidation-resistive metal material on [a] barrier metal layer...” At least for this reason, a *prima facie* case of obviousness has not been established in the rejection of claim 8 under 35 U.S.C. § 103(a).

In reply to the rejection of claims 10-13 under 35 U.S.C. § 103(a) as being unpatentable over Kim et al. (‘759) in view of Kim et al. (‘682), the Applicants respectfully request reconsideration. Claims 10-13 comprise the same recitations as discussed above for claims 1, 4-7, 9, and 14. For similar reasons as discussed above, Kim et al. (‘759) does not teach or suggest the recitations of claims 10-13 of “...forming a wetting of an oxidation-resistive metal material on [a] barrier metal layer...”

Kim et al. (‘682) relates to a “semiconductor device fabrication method”, as specified in the title. There is no disclosure in Kim et al. (‘682) of “...forming a wetting layer of an oxidation-resistive metal material on [a] barrier metal layer...”, as recited in claims 10-13. Further, the Office Action does not purport that Kim et al. (‘682) teach or suggest these recitations. Accordingly, Kim et al. (‘682) does not alleviate the deficiencies of Kim et al. (‘759). At least for this reason, a *prima facie* case of obviousness has not been established in the rejection of claims 10-13 under 35 U.S.C. § 103(a).

CONCLUSION

The Examiner is respectfully requested to reconsider and withdraw the corresponding rejection, and to pass the claims of the present application to issue, for at least the above reasons.

In the event that there are any outstanding matters remaining in the present application, please contact Daniel H. Sherr (Reg. No. 46,425) at (703) 715-0870 to discuss these matters.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment for any additional fees that may be required, or credit any overpayment, to Deposit Account No. 50-0238.

Respectfully submitted,
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